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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,348	01/04/2005	Toru Ikuta	2224-0237PUS1	5464
2292 7590 10/01/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER KNABLE, GEOFFREY L	
			ART UNIT 1733	PAPER NUMBER
			NOTIFICATION DATE 10/01/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	Application No. 10/520,348	Applicant(s) IKUTA, TORU	
	Examiner Geoffrey L. Knable	Art Unit 1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) See Continuation Sheet is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2, 4/2, 5/2, 6/2, 7/2, 8/2, 12/2, 13/12/2, 14/12/2, 15/12/2, 16, 17 and 19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/4/05; 4/4/05</u> . | 6) <input type="checkbox"/> Other: _____  |

Continuation of Disposition of Claims: Claims withdrawn from consideration are 1, 3, 4/1, 4/3, 5/1, 5/3, 6/1, 6/3, 7/1, 7/3, 8/1, 8/3, 9-11, 12/1, 13/12/1, 14/12/1, 15/12/1, 18, 20, 21.

Art Unit: 1733

1. Applicant's election of Group I, species A1 (polyamide) and B3 (rubber with sulfur agent) in the reply filed on 7-26-2007 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. Although applicant suggested that it appeared that claims 1-20 are readable on the elections made, because of the species elections made, it is not considered that this is an accurate indication of the claims readable on the elected species. In particular, the claims readable on the elected species are considered to be 2, 4/2, 5/2, 6/2, 7/2, 8/2, 12/2, 13/12/2, 14/12/2, 15/12/2, 16, 17 and 19. As such, claims 1, 3, 4/1, 4/3, 5/1, 5/3, 6/1, 6/3, 7/1, 7/3, 8/1, 8/3, 9-11, 12/1, 13/12/1, 14/12/1, 15/12/1, 18, 20 and 21 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected inventions/species, there being no allowable generic or linking claim.

Election was made **without** traverse in the reply filed on 7-26-2007 (as noted above).

3. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 7, lines 5 and 9, the reference to "thio" and "meth" being placed within parentheses raises some potential for confusion in assessing the scope of these materials. It is clear from the specification that these are intended to be in essence optional features of the respective materials but clarification of the claim language would help avoid any ambiguity in this regard.

Art Unit: 1733

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2, 4/2, 5/2, 6/2, 7/2, 8/2, 12/2, 13/12/2, 14/12/2, 15/12/2, 16, 17 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Freytag et al. (US 3,596,696) or Buckwalter et al. (US 2,927,051) or Jadamus et al. (US 5,153,076) or Gifford et al. (US 5,198,050).

Freytag et al. (e.g. example 2), Buckwalter et al. (e.g. Table III and col. 4, lines 4-11), Jadamus et al. (note the entire reference, esp. col. 9, line 16 reference to tires) and Gifford et al. (esp. col. 3, line 62 - col. 4, line 9) each disclose bonded structures, that can be in tires, of sulfur vulcanized rubber directly bonded to a thermoplastic material (e.g. polyamide/nylon in Freytag and Buckwalter, polyphenylene-ether in Jadamus et al.; nylon or polyphenylene ether in Gifford et al.) without an intervening adhesive layer. A tire structure and tire making process that meets the requirements of claims 2 and 16 is therefore anticipated by each of these references. As to claim 4, the thermoplastic in each of Freytag et al., Buckwalter et al. and Gifford et al. is clearly suggested as forming a reinforcing layer in the tire and further, it is considered that the thermoplastic PPE in

Art Unit: 1733

tires of Jadamus et al. could be broadly termed a reinforcing layer/material wherever used. As to claim 5, given that the thermoplastic in each case is bonded to rubber, it would seem to form what can be termed an adhesive bonded to the rubber. As to claim 6, at least the sulfur used to vulcanize and bond the rubber layer in each reference is a vulcanizing agent. As to claims 7 and 8, the thermoplastics in each reference are consistent with these claims. As to claims 12-15, 17 and 19, each of the references include small amounts of various agents that can be termed activators consistent with these claims such as the vulcanization accelerators. It is also noted that at least Freytag and Buckwalter also indicate optional use of an adhesive treatment to the nylon to enhance the vulcanized bond to the extent that claim 19 requires an additional layer that enhances the vulcanized bond.

7. Claims 2 and 5/2 are rejected under 35 U.S.C. 102(b) as being anticipated by Ogawa (US 4,461,795) or Kaido et al. (US 5,938,869) or Lin et al. (US 5,040,583).

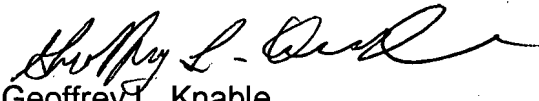
Ogawa (Tables 1-3), Kaido et al. (e.g. col. 9, lines 10-14) and Lin et al. (e.g. col. 5, lines 4-32) each disclose tires including a thermoplastic material functioning as an adhesive layer to a rubber member of the tire.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey L. Knable whose telephone number is 571-272-1220. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1733

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Geoffrey L. Knable  
Primary Examiner  
Art Unit 1733

G. Knable  
September 24, 2007